

ABSTRACT

5 Data arriving from a plurality of channels  
asynchronously to each other are respectively stored in  
separate FIFOs (10). A controller (12) monitors the  
status of the FIFOs (10), retrieves the stored data in a  
predetermined order, and multiplexes the data, together  
with timing data indicating the presence or absence of  
the data, into a serial signal having a frame structure  
10 in which time slots are fixedly assigned to the  
respective channels. On the serial data, the same value  
appears successively as data, and when the data is valid,  
the corresponding timing data changes from a 0 to a 1.  
When the data is invalid, the value of the corresponding  
15 timing data does not change.